

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Previously Presented) An electroluminescence display device comprising:
a substrate; and
a plurality of pixels over the substrate, each of the plurality of pixels comprising:
a first thin film transistor;
a second thin film transistor comprising at least two thin film transistors; and
an electroluminescence element comprising an organic layer interposed between a pair of electrodes,
wherein one of the pair of electrodes is electrically connected to the second thin film transistor,
wherein the first thin film transistor comprises at least two channel regions in an active layer, at least two gate electrodes corresponding to the channel regions, over the active layer with a gate insulating film interposed therebetween, and an impurity region interposed between the channel regions, and
wherein the at least two thin film transistors and the electroluminescence element are connected in series.
- 2-4. (Canceled)
5. (Previously Presented) An electroluminescence display device according to claim 1,
wherein the first thin film transistor is a switching thin film transistor and the second thin film transistor is a current control thin film transistor.
- 6-7. (Canceled)
8. (Previously Presented) An electroluminescence display device according to claim 1,
wherein each of the first and second thin film transistors has at least one lightly doped impurity region between a channel region and one of a drain region and the impurity region.
- 9-16. (Canceled)

17. (Withdrawn) An electroluminescence display device comprising:

a substrate; and

a plurality of pixels over the substrate, each of the plurality of pixels comprising:

a first thin film transistor;

a second thin film transistor comprising a gate electrode electrically connected to the first thin film transistor; and

an electroluminescence element comprising an organic layer interposed between a pair of electrodes,

wherein one of the pair of electrodes is electrically connected to the second thin film transistor,

wherein the first thin film transistor comprises at least two gate electrodes over the substrate, at least two channel regions corresponding to the gate electrode, over the gate electrode with a gate insulating film interposed therebetween, and an impurity region interposed between the channel regions, and

wherein the impurity region has the same impurity concentration as a source or drain region of the first thin film transistor.

18. (Withdrawn) An electroluminescence display device according to claim 17,

a channel width of the second thin film transistor is greater than a channel width of the first thin film transistor.

19. (Withdrawn) An electroluminescence display device according to claim 17,

wherein each of the first and second thin film transistors has at least one lightly doped impurity region between a channel region and one of a drain region and the impurity region.

20. (Withdrawn) An electroluminescence display device according to claim 17,

wherein the first thin film transistor is a switching thin film transistor and the second thin film transistor is a current control thin film transistor.

21. (Withdrawn) An electroluminescence display device according to claim 17,

wherein an equation of $W2/L2 \geq 5 \times W1/L1$ is established where a channel length of the second thin film transistor is L2, a channel width of the second thin film transistor is W2, a sum of each of the channel lengths of the channel regions of the first thin film transistor is L1 and a channel width of the first thin film transistor is W1.

22. (Withdrawn) An electroluminescence display device according to claim 21,

wherein the channel length of the second thin film transistor (L2) is 0.1 to 50 μm , the channel width of the second thin film transistor (W2) is 0.5 to 30 μm , the sum of each of the channel lengths of the channel regions of the first thin film transistor (L1) is 0.2 to 18 μm and the channel width of the first thin film transistor (W1) is 0.1 to 5 μm .

23. (Withdrawn) An electroluminescence display device according to claim 17,

wherein the substrate comprises a material selected from the group consisting of a glass, a glass ceramic, a quartz, a silicon, a ceramic, a metal, and a plastic.

24. (Canceled)

25. (Withdrawn) An electroluminescence display device comprising:

a substrate; and

a plurality of pixels over the substrate, each of the plurality of pixels comprising:

a first thin film transistor;

a second thin film transistor comprising a gate electrode electrically connected to the first thin film transistor; and

an electroluminescence element comprising an organic layer interposed between a pair of electrodes,

wherein one of the pair of electrodes is electrically connected to the second thin film transistor,

wherein the first thin film transistor comprises at least two gate electrodes over the substrate, at least two channel regions corresponding to the gate electrode, over the gate electrode with a gate insulating film interposed therebetween, and an impurity region interposed between the channel regions,

wherein a channel width of the second thin film transistor is greater than a channel width of

the first thin film transistor, and

wherein the impurity region has the same impurity concentration as a source or drain region of the first thin film transistor.

26. (Withdrawn) An electroluminescence display device according to claim 25,

wherein the first thin film transistor is a switching thin film transistor and the second thin film transistor is a current control thin film transistor.

27. (Withdrawn) An electroluminescence display device according to claim 25,

wherein the substrate comprises a material selected from the group consisting of a glass, a glass ceramic, a quartz, a silicon, a ceramic, a metal, and a plastic.

28.-32. (Canceled)

33. (Previously Presented) An electroluminescence display device comprising:

a substrate; and

a plurality of pixels over the substrate, each of the plurality of pixels comprising:

a switching element comprising an active layer and at least first and second gate electrodes adjacent to the active layer with a gate insulating film interposed therebetween;

a current control element comprising at least two thin film transistors ; and

an electroluminescence element comprising an organic layer interposed between a pair of electrodes,

wherein one of the pair of electrodes is electrically connected to the current control element, and

wherein the at least two thin film transistors and the electroluminescence element are connected in series.

34. (Previously Presented) An electroluminescence display device according to claim 33,

a channel width of the current control element is greater than a channel width of the switching element.

35. (Previously Presented) An electroluminescence display device according to claim 33, wherein each of the switching element and the current control element has at least one lightly doped impurity region.

36. (Previously Presented) An electroluminescence display device according to claim 33, wherein the substrate comprises a material selected from the group consisting of a glass, a glass ceramic, a quartz, a silicon, a ceramic, a metal, and a plastic.

37.-43. (Canceled)

44. (Previously Presented) An electroluminescence display device comprising:
a substrate; and
a plurality of pixels over the substrate, each of the plurality of pixels comprising:
a switching element comprising at least two thin film transistors;
a current control element comprising at least two thin film transistors ; and
an electroluminescence element comprising an organic layer interposed between a pair of electrodes,
wherein one of the pair of electrodes is electrically connected to the current control element,
and
wherein the at least two thin film transistors in the current control element and the electroluminescence element are connected in series.

45. (Previously Presented) An electroluminescence display device according to claim 44, a channel width of the current control element is greater than a channel width of the switching element.

46. (Previously Presented) An electroluminescence display device according to claim 44, wherein each of the switching element and the current control element has at least one lightly doped impurity region.

47. (Previously Presented) An electroluminescence display device according to claim 44, wherein the substrate comprises a material selected from the group consisting of a glass, a glass ceramic, a quartz, a silicon, a ceramic, a metal, and a plastic.

48.-64. (Canceled).

65. (Currently Amended) An electroluminescence display device comprising:

a substrate; and

a plurality of pixels over the substrate, each of the plurality of pixels comprising:

a first thin film transistor;

a second thin film transistor comprising at least two channel regions; and

an electroluminescence element comprising an organic layer interposed between a pair of electrodes,

wherein one of the pair of electrodes is electrically connected to the second thin film transistor,

wherein the first thin film transistor comprises at least two channel regions in an active layer, at least two gate electrodes corresponding to the channel regions, over the active layer with a gate insulating film interposed therebetween, and an impurity region interposed between the channel regions, and

wherein the at least two channel regions ~~thin film transistors~~ in the second thin film transistor and the electroluminescence element are connected in series.

66. (Previously Presented) An electroluminescence display device according to claim 65,

wherein the first thin film transistor is a switching thin film transistor and the second thin film transistor is a current control thin film transistor.

67. (Previously Presented) An electroluminescence display device according to claim 65,

wherein the substrate comprises a material selected from the group consisting of a glass, a glass ceramic, a quartz, a silicon, a ceramic, a metal, and a plastic.

68. (Currently Amended) An electroluminescence display device comprising:

a substrate; and

a plurality of pixels over the substrate, each of the plurality of pixels comprising:

a first thin film transistor comprising at least two channel regions in a first semiconductor film;

a second thin film transistor comprising at least two channel regions in a second semiconductor film; and

an electroluminescence element comprising an organic layer interposed between a

pair of electrodes,

wherein one of the pair of electrodes is electrically connected to the second thin film transistor, and

wherein the at least two channel regions ~~thin film transistors~~ in the second semiconductor film and the electroluminescence element are connected in series.

69. (Previously Presented) An electroluminescence display device according to claim 68, wherein the first thin film transistor is a switching thin film transistor and the second thin film transistor is a current control thin film transistor.

70. (Previously Presented) An electroluminescence display device according to claim 68, wherein the substrate comprises a material selected from the group consisting of a glass, a glass ceramic, a quartz, a silicon, a ceramic, a metal, and a plastic.